65.    (Once Amended)    The apparatus of claim 64, wherein said storage controller, said first switch controller, and said second switch controller are operatively connected to said control signal detector and operate in response to at least one control signal transmitted from said remote transmitter, said apparatus further comprising a second receiver for receiving said control signal from said remote transmitter.

[The method of claim 63, wherein said at least one control signal comprises one of a code and a datum which operates at the remote intermediate mass medium programming transmitter station to identify said mass medium programming, said method further comprising the step of:

transmitting a schedule which operates at the remote intermediate mass medium programming transmitter station to communicate said mass medium programming to said one of said broadcast transmitter and said cablecast transmitter at said specific time.]

## II.    REMARKS

### A.    Claim Amendments

No new matter is presented in the foregoing amendments.  Approval and entry of same is respectfully requested.

### B.    Specification Support

For the benefit of examination, Applicants provide the following tables for each newly amended independent claim indicating the claim language, its associated reference to the parent U.S. Pat. No. 4,694,490, and the corresponding language from the specification.

### 1.    Claim 2

35

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| receiving said plurality of signals, said at least one of said plurality of signals received from a source external to said receiver station, said plurality of signals including at least two | Column 19 lines 35-41; | Each weekday, microcomputer, 205, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. It may receive these directly or it may automatically query a data service for them in a predetermined fashion. It records those prices that relate to the stocks in its stored portfolio. |
| | and lines 28-29 | ...may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week." |
| | with lines 45-48. | When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. |
| transmissions of different kinds; | Column 15 lines 52-54. | If a unit like the microcomputer can receive transmissions from more than one source or of more than one kind--television, radio, or other--it will have sufficient apparatus to monitor every channel and kind of transmission it can receive. |
| processing said at least a portion of said one of said plurality of signals to provide a first portion of said multimedia presentation; and | Column 19 lines 45-49 | When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. |
| | with respect to column 30-34. | Co-ordinating Multimedia Presentations in Time   Figure 6C can also illustrate how programing delivered at different times to one place can be co-ordinated to give a multimedia presentation at one time in one place. |
| outputting said multimedia presentation based on said step of processing, said multimedia presentation comprising | Column 19 line 67 to column 20 line 2; | The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic. |
| information based on a first of said at least two transmissions of different kinds and information | see above with column 19 lines 39-41; | It records those prices that relate to the stocks in its stored portfolio. |
| based on a second of said at least two transmissions of different kinds. | Column 20 lines 1-2 | ... his own stocks' performance overlay the studio generated graphic. |
| | with column 19 lines | ...and a studio generated graphic is pictured. |

Serial No. 08/487,526
Docket No. 05634.0355

| | 55-56. | |
|---|---|---|

## 2.     Claim 20

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| receiving a first signal from a first source; | Column 18 lines 13-14. | The person turns on television, 202, and tunes to the proper channel. |
| processing at least a portion of said first signal to enable a multimedia presentation at said receiver station; | Column 18 lines 14-25. | TV signal decoder, 203, detects signals in the programing transmission on the channel which signals it transfers to monitor or processor, 204. Monitor or processor, 204, determines that certain signals are addressed to switch, 212, and transfers these signals to switch, 212. These signals instruct switch, 212, to turn power on to radio, 209, and its associated equipment, including a conventional digital tuner, 213. Monitor or processor, 204, also identifies signals addressed to tuner, 213, which it transfers accordingly. |
| receiving a second signal from a second source external to said receiver station based on said step of processing; and | Column 18 lines 25-26. | These signals instruct tuner, 213, to tune radio, 209, to the proper frequency for the simulcast. |
| outputting said multimedia presentation, said multimedia presentation comprising information based on said first signal and information based on said second signal. | Column 18 lines 27-29. | Automatically, by turning TV set, 202, to the channel with a stereo simulcast, the person has activated the stereo simulcast. |

## 3.     Claim 24

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| receiving, from a remote transmitter station, a control signal at said receiver station; | Column 18 lines 13-17. | The person turns on television, 202, and tunes to the proper channel. TV signal decoder, 203, detects signals in the programing transmission on the channel which signals it transfers to monitor or processor, 204. |
| controlling said receiver station to output said multimedia | Column 18 lines 17-26. | Monitor or processor, 204, determines that certain signals are addressed to switch, 212, and transfers these signals to switch, 212. |

| | | |
|---|---|---|
| presentation in response to said control signal; and | | These signals instruct switch, 212, to turn power on to radio, 209, and its associated equipment, including a conventional digital tuner, 213. Monitor or processor, 204, also identifies signals addressed to tuner, 213, which it transfers accordingly. These signals instruct tuner, 213, to tune radio, 209, to the proper frequency for the simulcast. |
| outputting said multimedia presentation at at least two of a plurality of output devices at said receiver station, said multimedia presentation comprising information based on said plurality of signals from at least two different sources. | Column 18 lines 27-29. | Automatically, by turning TV set, 202, to the channel with a stereo simulcast, the person has activated the stereo simulcast. |

## 4. Claim 26

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| receiving at least two discrete signals from different sources, at least one of said different sources being a remote transmitter station; | Column 19 lines 28-29<br><br>and lines 37-41. | microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."<br><br>It may receive these directly or it may automatically query a data service for them in a predetermined fashion. It records those prices that relate to the stocks in its stored portfolio. |
| processing a control signal to enable output of a multimedia presentation at said receiver station; and | Column 19 lines 64-66. | This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. **This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202,** for as long as it receives the same instruction signal from processor, 204. |
| outputting said multimedia presentation based on said step of processing, said multimedia presentation comprising one of | Column 19 line 67-column 20 line 2;<br><br>with column 19 lines 30-34. | The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.<br><br>Co-ordinating Multimedia Presentations in Time Figure 6C can also illustrate how programing delivered at different times to one place can be co-ordinated to give a multimedia presentation at one time in one place. |

| a sequential | Column 19 lines 59-60. | Then the host says, "And here is what your portfolio did." |
|---|---|---|
| and a simultaneous | Column 19 line 67 to column 20 line 2. | The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic. |
| presentation of information based on | | |
| a first signal of said at least two discrete signals and information based on | Column 19 lines 59-60 | Then the host says, "And here is what your portfolio did." |
| | and column 20 lines 1-2. | ...own stocks' performance overlay the studio generated graphic. |
| a second signal of said at least two discrete signals. | See above column 19 line 68 to column 20 line 1, with column 19 lines 39-41. | It records those prices that relate to the stocks in its stored portfolio. |

## 5.    Claim 29

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| processing a first control signal at said receiver station that programs a processor to process at least one signal; | Column 19 lines 45-53. | When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, to generate several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display, and to transmit these overlays to TV set, 202, upon command. |
| receiving, from a remote transmitter station, at least one second control signal; | Column 19 lines 60-64. | At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. |
| responding to said at least one second control signal based on said step of processing; and | Column 19 lines 64 to column 20 line 2; | This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic. |
| | with respect to column 19 lines 48-53. | These signals instruct microcomputer, 205, to generate several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display, and to transmit |

| | | these overlays to TV set, 202, **upon command.** |
|---|---|---|
| outputting said multimedia presentation at said at least one output device based on said step of responding. | Column 19 lines 67 to column 20 line 2, <br><br> with respect to column 19 line 30. | *See above.* <br><br> Co-ordinating Multimedia Presentations in Time |

## 6. Claim 33

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| receiving a user response based on outputting a first signal at said receiver station; | Column 20 lines 24-28, with respect to lines 20-24. | The viewer then presses buttons 567 on local input, 225, which signal is conveyed to the buffer/comparator, 8 (referring to Fig. 1), of signal processor, 200, to hold and process further in a predetermined fashion. |
| receiving first data signal from a remote transmitter station; | Column 20 lines 28-32. | Five minutes later, a signal is identified in the incoming programing on TV set, 202, by decoder, 203, which is also transferred by processor, 204, to buffer/comparator, 8, of signal processor, 200. This signal instructs buffer/comparator, 8, that, if **567** has been received from signal generator,.... |
| comparing, based on said user response, said first data to second data stored at said receiver station; | Column 20 lines 24-32. | *See above.* |
| receiving a second signal based on said step of comparing; and | Column 20 lines 35-36. | to the appropriate channel to receive the recipe in encoded digital form and instruct control means, 226, to activate printer, 221. |
| outputting said multimedia presentation at said receiver station, said multimedia presentation comprising | Column 20 lines 11-14. | Co-ordinating Print and Video <br> Figure 6D illustrates one method for co-ordinating the presentation of information through the use of print with video. Figure 6D also illustrates possible uses of a decrypter and a local input. |
| information based on said first signal | Column 20 lines 16-17. | Suppose a viewer watches a television program on cooking techniques that is received on TV set, 202, via box, 201. |
| and information based on said second signal. | Column 20 lines 47-50. | When the transmission of the recipe is received, box 222, transfers the transmission to decrypter, 224, for decryption and thence to printer, 221, for printing. |

7.    Claim 37

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| at least one receiver for receiving a plurality of signals, | Column 19 lines 35 | Each weekday, **microcomputer, 205**, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. |
| | and line 48. | These signals instruct microcomputer, 205, to generate several graphic video overlays,…. |
| said at least one receiver capable of receiving at least one of said plurality of signals from a remote transmitter station, said plurality of signals including at least | Column 19 lines 20-23 | Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X. |
| | and lines 60-63. | At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. |
| two transmissions of different kinds; | Column 15 lines 52-54. | If a unit like the microcomputer can receive transmissions from more than one source or of more than one kind--television, radio, or other--it will have sufficient apparatus to monitor every channel and kind of transmission it can receive. |
| at least one processor operatively connected to said at least one receiver for processing said at least one of said plurality of signals and providing a portion of a multimedia presentation; and | Column 19 lines 35 | Each weekday, **microcomputer, 205**, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. |
| | line 48; | These signals instruct **microcomputer, 205**, to generate several graphic video overlays,…. |
| | line 60; | This signal instructs **microcomputer, 205**, to transmit the first overlay to TV set, 202,…. |
| | and column 20 line 4. | …and the **microcomputer, 205**, ceases transmitting its own graphic to TV set, 202, and prepares to send the next locally generated graphic overlay upon instruction from the originating studio. |
| at least one output device operatively connected to said at least one receiver and said at least one processor for outputting said multimedia presentation, said | Column 19 line 28 | to turn **TV set, 202**, on and tuner, 215, to tune appropriately to "Wall Street Week." |
| | with line 66; | to transmit the first overlay **to TV set, 202**, for as long as it receives the same instruction signal from processor, 204. |
| | lines 28-34. | switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street |

| multimedia presentation | | Week." Co-ordinating Multimedia Presentations in Time    Figure 6C can also illustrate how programing delivered at different times to one place can be co-ordinated to give a multimedia presentation at one time in one place. |
|---|---|---|
| comprising information based on a first of said at least two transmissions and information based on a second of said at least two transmissions. | *See above citations.* | |

## 8.    Claim 43

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| receiving at a transmitter station in said network said at least one of said plurality of signals, | Column 11 lines 51-52 | For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93,.... |
| | with column 10 lines 25-28; | Figure 3 illustrates the use of Signal Processing Apparatus and Methods at a cable television system "head end" transmission facility that cablecasts several channels of television programing. |
| wherein a first of said plurality of signals and a second of said plurality of signals are | column 19 lines 35-41, | Each weekday, microcomputer, 205, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. It may receive these directly or it may automatically query a data service for them in a predetermined fashion.  It records those prices that relate to the stocks in its stored portfolio. |
| | and lines 28-29; | ...may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week." |
| transmissions of different kinds and | column 15 lines 52-54; | If a unit like the microcomputer can receive transmissions from more than one source or of more than one kind--television, radio, or other--it will have sufficient apparatus to monitor every channel and kind of transmission it can receive. |
| said multimedia | column 19 line 67 to | *See above citations.* |

| | | |
|---|---|---|
| presentation comprises information based said first of said plurality of signals and information based on said second of said plurality of signals; and | column 20 line 2. | |
| transmitting said at least one of said plurality of signals to said receiver station before | Column 11 lines 54-57 with column 19 lines 45-56; | ...controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87. |
| a specific time; whereby said receiver station is enabled to output said multimedia presentation. | Column 19 lines 67-68. | for as long as it receives the same instruction signal from processor, 204 |

## 9.    Claim 51

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| a receiver for receiving said at least one of said plurality of signals, | Column 11 line 52; | For example, if controller/computer, 73, determines that programing **incoming via receiver, 53,**.... |
| wherein at least two of said plurality of signals | Column 19 lines 35-41 and | Each weekday, microcomputer, **205**, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. It may receive these directly or it may automatically query a data service for them in a predetermined fashion. It records those prices that relate to the stocks in its stored portfolio. |
| | lines 28-29. | ...may instruct switch, **216**, to turn TV set, **202**, on and tuner, **215**, to tune appropriately to "Wall Street Week." |
| being transmissions of different kinds and | Column 15 lines 52-54. | If a unit like the microcomputer can receive transmissions from more than one source or of more than one kind--television, radio, or other--it will have sufficient apparatus to monitor every channel and kind of transmission it can receive. |
| said multimedia presentation comprises | Column 19 line 67 to column 20 line 2. | The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic. |

| information based on a first of said at least two of said plurality of signals and information based on a second of said at least two of said plurality of signals; and | Column 19 lines 39-41. | *See above.* |
|---|---|---|
| a transmitter operatively connected to said receiver for transmitting said at least one of said plurality of signals to said receiver station. | Column 11 line 57; <br><br> column 19 lines 14-15; <br><br><br><br><br> and column 19 lines 20-23. | to the output that leads to **modulator, 87.** <br><br> Microcomputer, **205,** instructs signal processor, **200,** to pass all program and channel identifiers on all programing being cablecast on the multi-channel system. <br><br> Analyzing these identifier signals in a predetermined fashion, microcomputer, **205,** determines that "Wall Street Week" is being televised on channel X. |

## 10.   Claim 57

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| receiving at a second transmitter station in said network said at least one of said plurality of signals, | Column 19 lines 60-62; | At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. |
| wherein at least two of said plurality of signals are transmissions of different kinds and said multimedia presentation comprises information based on a first of said at least two of said plurality of signals and information based on a second of said at least two of said plurality of signals; | *See above citations.* | |
| transmitting said at least one of said plurality of signals to said first transmitter station; and | Column 19 lines 60-63; <br><br> and column 11 lines 50-57. | *See above.* <br><br> For example, if controller/computer, **73,** determines that programing incoming via receiver, **53,** should be transmitted immediately to the field distribution system, **93,** via cable channel modulator, **87,** controller/computer, **73,** instructs matrix switch, **75,** to configure its switches so as to transfer programing transmissions inputted |

| | | from TV receiver, 53, to the output that leads to modulator, 87. |
|---|---|---|
| transmitting said at least one instruction, whereby said network is enabled to output said multimedia presentation. | Column 19 lines 60-63; and column 11 lines 38-39. | *See above.*<br><br>By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing. |

## 11. Claim 61

| Claim Language | Spec. Reference | Specification Language |
|---|---|---|
| an intermediate transmitter for transmitting said at least one of said plurality of signals to said receiver station, | Column 11 line 54; | **cable channel modulator, 87.** |
| wherein at least two of said plurality of signals are | Column 19 lines 35-41 and lines 28-29 with lines 45-48. | Each weekday, microcomputer, 205, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day. It may receive these directly or it may automatically query a data service for them in a predetermined fashion. It records those prices that relate to the stocks in its stored portfolio. |
| transmissions of different kinds and | *See above citations.* | |
| said multimedia presentation comprises information based on a first of said at least two of said plurality of signals and | *See above citations.* | |
| information based on a second of said at least two of said plurality of signals; | Column 20 lines 1-2; | ... own stocks' performance overlay the studio generated graphic. |
| | and column 19 lines 55-56. | "Here is what the Dow Jones Industrials did is the past week," and a studio generated graphic is pictured. The host then says, "Here is what the broader NASDAQ index did in the week past," |
| a selective transfer | Column 11 line 55; | **matrix switch, 75.** |

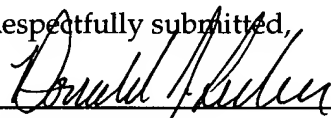| | | |
|---|---|---|
| device operatively connected to said intermediate transmitter for receiving said at least one of said plurality of signals from | | |
| a remote transmitter and communicating said at least one of said plurality of signals in response to | Column 19 lines 60-63. | At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. |
| a control signal which causes said selective transfer device to at least one of | Column 11 lines 38-44. | By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing. |
| (1) delay transmission of said at least one of said plurality of signals, and | Column 11 lines 58-60; | Similarly, if controller/computer, 73, determines that incoming programing should be recorded for delayed transmission,…. |
| (2) transmit said at least one of said plurality of signals based on a schedule; and, | lines 38-43; | By comparing identification signals on the incoming programing with the **programing schedule** received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing. |
| | and lines 50-57. | For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87. |
| a control signal detector operatively connected to said selective transfer device for communicating said control signal. | Column 11 line 41. | **controller/computer, 73.** |

## III.     CONCLUSION

In accordance with the foregoing it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Thus, there being no further outstanding objections or rejections, the application is submitted as being in a condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,

Thomas J. Scott, Jr.
Reg. No. 27,836
Donald J. Lecher
Reg. No. 41,933
Attorneys for Applicants
Tel: (202) 383-6790

Date: <u>April 12, 1999</u>
**HOWREY & SIMON**
1299 Pennsylvania Avenue, N.W.
Washington, D.C.  20004